

Serial No.: 10/610,969
Amendment Dated: July 12, 2005
Reply to Office Action of January 14, 2005

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the above-captioned patent application:

Listing of Claims:

1. (Cancelled)
2. (Cancelled)
3. (Cancelled)
4. (Cancelled)
5. (Cancelled)
6. (Cancelled)
7. (Cancelled)
8. (Cancelled)
9. (Cancelled)
10. (Cancelled)
11. (Cancelled)
12. (Cancelled)

13. (Cancelled)

14. (Currently Amended) A vertical reactor cartridge which comprises an outer housing having a pair of oppositely disposed open ends, a housing which contains an inlet fan and an inlet port connected to a vertical inlet tube positioned at one end extending upwardly through center of said cartridge with said end further containing a water inlet and a gas outlet, and a water reservoir attached to said opposite end, with said reservoir further containing an outlet for the removal of water, where in operation, a source of methane which contains H₂S to be treated is passed through said inlet and passed through a suitable source of microorganisms contained on a particulate carrier medium in said housing which are selected to degrade the H₂S, with said treated methane being released through said gas outlet.

15. (Currently Amended) A ~~system~~ method for removing H₂S from methane which comprises:

(a) providing a reactor cartridge having an outer housing which contains a gas inlet, water inlet[[s]], and a gas outlet[[s]] at one end thereof and a water outlet at the opposite end[[s]] thereof, a source of microorganisms contained on a particulate carrier medium within said housing which are selected to degrade H₂S;

(b) passing a stream of methane which contains H₂S through said gas inlet and through said microorganism contained in said housing whereby said H₂S is degraded; and

(c) passing said treated methane through said gas outlet for storage or to a source of use.

16. (Cancelled)

17. (Cancelled)

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18. (Cancelled)

19. (Cancelled)